

## Index to 1985 Articles

Accidents.....	93	Fishin.....	95	Pollution.....	97
Aquaculture.....	93	Foreign.....	95	Processing.....	98
Boatbuilding.....	93	Gear & Methods.....	96	Safety/Survival.....	98
Books.....	93	Robert L. Kocher.....	96	Salmon.....	98
Clams.....	94	Misellaneous.....	97	Shellfish.....	98
Crabs.....	94	Legislation.....	97	Shrimp.....	98
Education.....	94	Lobsters.....	97	YB Yearbook	
Electronics.....	94	People.....	97	T. West Coast Focus	
Engines.....	94				

### ACCIDENTS

South Korean freighter sinks 65' Calif. dragger.....	Jan.	14
Clear thinking enabled three men to survive capsizing.....	Jan.	26
Storm leaves five dead; Canadian forecasting criticized.....	Jan.	7†
Aleutian Bounty lost, empty raft found.....	Feb.	14
Costly search yields no traces of Amazing Grace.....	Feb.	14
U.S. liable for deaths of three fishermen (Fair Wind).....	March	2
MAREP needs greater public support.....	March	3
Final hearing on 'A' boat sinkings (Altair, Americus).....	March	8†
Sinking claims Virginia tongers' lives (High Hopes).....	April	18
'A' boat losses pinned on lack of stability.....	Oct.	8
What loss of the 'A' boats has taught.....	Nov.	4
Winch maker Hathaway loses product-liability suit.....	Nov.	11

### AQUACULTURE

Teaching salmon survival ABC's could boost returns.....	March	7†
Pond-reared imports are salt in Gulf shrimpers' wounds.....	YB	32
Northwest fishermen skittish as salmon farming grows.....	YB	45
Salmon farms run gamut from big to small.....	YB	46
Can commercial fisheries and mariculture coexist?.....	May	34
State prison goes for 'pen'-raised salmon.....	May	1†

### BOATBUILDING (Aluminum)

East meets West in innovative 44-footer.....	May	50
Oregon gillnetter Lee Clark and the Blackheart.....	July	38
The purse boat: workhorse of the menhaden business.....	Aug.	52
Rozema Boats builds Bristol Bay gillnetter Thunder Bay.....	Sept.	42
For aluminum work boats, Southeast fishermen have Wrangell.....	Nov.	18
Sailing fish boats: George Olafson opts for 44-footer.....	Dec.	34

### BOATBUILDING (Fiberglass)

Installing balsa core in a lobster boat hull.....	Feb.	54
Meet a new breed of boatbuilder — the hull finisher.....	March	47
Hull finishers tackle job with a variety of techniques.....	April	54
Innovation, not tradition, is designer Blount's byword.....	YB	82
Fiberglass production boats began with Carl Beetle.....	YB	86
Lobster boats are not just for New England.....	May	52
Desco shrimp Lady Margaret undergoes surgery.....	May	56
Vacuum-bagged panels.....	May	73
Boston Whalers now strut their stuff for a living.....	July	26
Morro Bay lays claim to the ultimate patrol boat.....	July	30
Electron heat gun prepares hull surfaces.....	July	49

Boatbuilders Ltd. builds Cape Islander in cored fiberglass.....	Sept.	23
Billiot Boat Works: Specialists in Lafitte skiffs.....	Oct.	38
Steiger Craft 25 is a solid performer.....	Oct.	42

### BOATBUILDING (John Gardner)

Designer Bill Oehrle favors steel for a 32' stern trawler.....	Jan.	48
V-bottom launch will prove to be an able work boat.....	March	54
Ferrrocement never got the chance to prove itself.....	March	56
Naval architecture loses a giant: Walter J. McInnis.....	April	66
Building half models.....	YB	102
Abundance of wooden-boat building workshops.....	June	51
Capable Yankee skiff even adapts to power.....	July	44
Building the Yankee skiff.....	Aug.	60
Strip planking for the Yankee skiff.....	Sept.	50
Boatbuilders get bad news, good advice about job hazards.....	Oct.	48
25' Gardner design lends itself to steel construction.....	Nov.	68
Completing the strip-built Yankee skiff.....	Nov.	76
Tale of fishing shows ability of local catboat.....	Nov.	85
Replacement for penta may pose similar hazards.....	Dec.	42

### BOATBUILDING (Steel)

Seabank Autoliner Jessica B slides down the ways.....	Jan.	38
Ocean Enterprise is launched.....	April	50
A boat for all seasons: American No. 1.....	YB	72
Early side trawlers changed U.S. fisheries forever.....	YB	90
Shaghellion: a Bill Oehrle-style inshore fishing boat.....	May	40
New Bedford's new scalloper/trawler Osprey.....	June	40
The 302' Golden Alaska to begin another new life.....	Aug.	57
Two 115' catcher boats: the Arctic I and II.....	Nov.	66
Sailing fish boats: Roberts 53.....	Dec.	35

### BOATBUILDING (Wood)

Fishing under sail on Galveston Bay.....	Jan.	44
Fred Erickson rebuilds aged but noble Bothnia.....	Feb.	52
Harkers Islander Alex Willis and strip-planked boats.....	March	32
J.O. Brown still building wooden boats.....	April	52
From drake tails to potpie sterns in the Chesapeake.....	YB	78
Three fish boat designs from Landing Boatshop students.....	YB	96
Boothbay skiff builder Neal Murphy preserves tradition.....	May	26
Double-end (Snug 28) attracts commercial fishermen.....	May	64
Calkins' Bartender: the sport boat that went commercial.....	July	28
The Columbia is one gem of a wooden scalloper.....	Aug.	50
Alabama boatbuilder Nathaniel Zirillo.....	Nov.	83

### BOATBUILDING (Misc.)

Sea Gleaner: Resourcefulness in trawl conversion.....	March	44
The 1984 boatbuilding review.....	YB	16
A bulbous bow gives a vessel several advantages.....	YB	99
Oregon builder tries bulbous bow.....	Aug.	55
Unassuming Rockland Boat shop captures the past.....	Aug.	58

### BOOKS

Under Alaskan Seas: The Shallow Water Marine Invertebrates.....	Jan.	55
Island Journal.....	Jan.	55
Shiphandling for the Mariner.....	Jan.	55

# WHEN FISHING'S YOUR BUSINESS



**MARINE  
BATTERIES**

Deka 3400 marine batteries are built to handle tough demands of a busy commercial vessel. Fully packed with up to 100 plates and 234 amp hours of capacity (@ 8 hr. rate).

Deka offers the commercial fisherman the broadest line of marine batteries in the industry. There's size to fit your needs, exactly. Seven sizes range from 18½" to 27½" long. Built with heavy duty plates and premium glass mat separators for long, active life. A rugged commercial case reduces damaging vibration, extends service life.

And if you're fishing for fun, try one of Deka's trolling motor batteries. They deliver steady, reliable power for long, quiet hours of fishing. A great catch.

**Deka Marine Batteries Built to Serve the Commercial Fisherman.**

**EAST PENN manufacturing co., inc.**

Lyon Station, PA 18636

Phone: (216) 862-2361

Dealer  
Inquiries Invited

Building Classic Small Craft, Vol. 2.....	Feb.	72
Fisheries Ecology.....	Feb.	72
Fishing Vessel Safety Conference, 1983.....	Feb.	72
The Canadian Fishing and Marine Directory, Part Two.....	Feb.	72
Red Swamp Crawfish, Biology and Exploitation.....	Feb.	72
Development in Aquaculture and Fisheries Science.....	Feb.	72
Artificial Salmon Spawning: A Manual.....	Feb.	72
The Historic American Merchant Marine Survey.....	Feb.	72
Fish Catching Methods of the World.....	Feb.	72
Origins of Sea Terms.....	Feb.	72
The Cornell Manual for Lifeboatmen, Able Seamen, and Qualified Members of the Engine Department.....	March	64
Salty Words.....	March	64
Life in the Chesapeake Bay.....	April	76
A Commercial Fisherman's Guide to Marine Insurance and Law.....	April	76
The Jonah Man.....	April	76
Ghosts Ships of the Great Lakes.....	April	76
True Tales of the Great Lakes.....	April	76
A Seaman's Guide to the Rules of the Road.....	May	76
Customizing Small Boats.....	May	76
The Life of an Aland Seafarer.....	May	76
A Crime Against the World: Memoirs of a Russian Sea Captain.....	July	52
Salmon.....	Aug.	76
Should There Be a Propeller Nozzle on Your Trawler?.....	Aug.	76
Boatkeeper: Boatowner's Guide to Maintenance, Repair and Improvement.....	Aug.	76
The Cod: A Saga of the Sea.....	Aug.	76
The Bay.....	Aug.	76
The Great Lobster Chase.....	Sept.	62
Sitka Man.....	Sept.	62
Fisherman's Guide: Fishes of the Southeastern United States.....	Oct.	52
The United States Navy in Hampton Roads.....	Oct.	52
Barges.....	Oct.	52
California Currents — An Exploration of the Ocean's Pleasures, Mysteries and Dilemmas.....	Nov.	93
ASMI publishes retailers' guide to seafood.....	Dec.	32
The Clymer Engine Shop Manual Series.....	Dec.	47
Fifty Wooden Boats: a Catalog of Building Plans.....	Dec.	47
Caution: Working Waterfront.....	Dec.	47
The 1985 Citizen's Guide to the Ocean.....	Dec.	47
The Weather Wizard's Cloud Book.....	Dec.	47

## Menhaden: Soybean of the Sea.....

Dec. 47

## CLAMS

New Jersey mounts anti-poaching campaign.....	Jan.	23
Florida's clam bonanza pits natives against 'Yanks'.....	Feb.	8
Florida clams just add to R.I. quahoggers' woes.....	June	12
Surf clammers stay afloat in a sea of regulations.....	July	20
Hydraulic rigs kick up clams in the Chesapeake.....	Aug.	20
Shellfish beds vs. marinas.....	Nov.	16

## CRABS

Chesapeake crab wars slowed.....	Jan.	22
Few riches from this year's Dungeness crop.....	Jan.	5†
Limited entry OK'd for Southeast crab.....	Jan.	5†
Tanner crab prospects look bleak.....	March	5†
Portrait of blue crab fisherman John West.....	Sept.	14
Fishery management dealt a blow in P.E.I. snow crab case.....	Sept.	22
Opilios show up in record numbers.....	Sept.	1†
King crab: low prices, but some hopeful signs.....	Oct.	1†
Dredging for blue crabs with Johnny Ward.....	Dec.	22
Winter is dredge season for Virginia crabbers.....	Dec.	23

## EDUCATION

Learning aids expedite studying for C.G. exams.....	Jan.	52
Training vessel makes good use of MarcoMatic.....	Feb.	50
Migrant education program caters to fishing families.....	March	6†
Fish boat designs from Landing Boatshop students.....	YB	96
Marine surveying course at the Northwest School.....	Nov.	80

## ELECTRONICS

FCC hands out heavy fines for improper VHF use.....	Jan.	22
Echo sounders are up against a formidable task.....	Jan.	41
Fish-finding: tips from three fishermen.....	April	33
Experience and electronics find fish for Tim Athens.....	April	36
Net sounder from Ross shows trawlermen 'true motion'.....	April	38
Simrad's sophisticated color sounder, the ES380.....	April	39
Today's advanced echo sounders call for sharp interpretation.....	April	40
Improved Echotone color sounder has its own display monitor.....	April	72
'Fish target enhancers' turn echoes into audible signals.....	May	72
Single-sidebands are getting better all the time.....	June	17
Digital radar is coming of age.....	Aug.	30
Compact sonars for smaller boats.....	Aug.	38
American Pioneer offers another fish-finding option.....	Aug.	39
Conex's 'Tidefinder' makes complex calculations obsolete.....	Aug.	70
Speaking confidentially: radio communications.....	Dec.	8

## ENGINES

Added muscle gives the F/V Rover's life new meaning.....	Jan.	32
Marinizing can save you money.....	Feb.	32
U.S. outboards: what's new for '85.....	Feb.	34
Be wary of the horsepower rating game.....	Feb.	38
Installing an outboard motor can be complex.....	March	58

**DELTA MARINE INDUSTRIES, INC.**  
 1608 South 96th Street, Seattle, WA 98108  
 (206) 763-2383  
 Ref#: 32-8044

Builders of superior pilot, work, charter, fishing and custom vessels up to 120'. Call for more information:  
**(206) 763-2383.**



## SPRING SALE

For Telephone Orders Only:  
 call Toll Free 1-800-221-3092

SI-TEX	RECORDERS	KING
ME-293 IRRIK.....	0 214.00	0 429.95
ME-297 IRRIK.....	0 274.95	0 489.95
ME-301 IRRIK.....	0 368.95	0 589.95
ME-302 IRRIK.....	0 368.95	0 589.95
ME-32 IRRIK A.....	0 525.95	0 868.95
ME-32 IRRIK B.....	0 519.95	0 874.95
SH-1.....	0 99.95	Call for quote
SH-2.....	0 110.00	Call for quote
FL-5.....	0 189.95	0 318.95
FL-6.....	0 189.95	0 318.95
FL-7.....	0 124.95	Ray Jeff Telemac 1500.....
FL-8.....	0 138.95	Ray Jeff Telemac 1500A.....
FL-9.....	0 145.95	Ray Jeff Telemac 2000.....
FL-10.....	0 145.95	Ray Jeff Telemac 2000A.....
ME-710 Color Scope.....	0 1645.95	0 2495.95
ME-705 Color Scope.....	0 1694.95	0 2495.95
REGENCY	VHF RADIOS	STANDARD
MT 2600.....	\$198.95	LTD.....
MT 5600 XL.....	0 219.95	Call for quote
APOLCO	2000.....	Explorer.....
Apolco Clipper 20.....	0 154.95	USA II.....
Apolco Clipper Jr.....	0 258.95	USA III.....
VXL-7000.....	0 223.95	Voyager.....
VXL-9000.....	0 244.95	4400.....
SI-TEX	ME-95 & M-95C.....	0 245.95
855.....	0 194.95	Call for quote
ME-1.....	0 194.95	0 194.95
CHART RECORDER PAPER	8 rolls	12 rolls
#2000.....	3"	\$27.95
#4000.....	4"	\$24.95
#4500.....	4"	\$24.95
#5000.....	5"	\$29.95
SI-TEX	LORAN	FURUNO
SI-TEX	MICROLOGIC	LC-90.....
787.....	0 989.95	0 799.00
UR-7 Remote.....	0 308.95	0 1608.95
EZ-7.....	0 478.95	0 1439.95
King #001-01.....	0 989.95	0 989.95
FURUNO	RADAR (freight collect)	SI-TEX
1700.....	Call for quote	FR-810.....
2000.....	Call for quote	FR-802.....
2400.....	Call for quote	FR-803.....
240 MKIII.....	Call for quote	FR-804.....
FR-805.....	Call for quote	FR-805.....
TEMPERATURE GAUGES		AUTO PILOT
Si-Tex BT1.....	0 98.95	Dytek 500.....
Si-Tex BT2.....	0 108.95	Dytek 1000.....
Lorenz LDT 2000.....	0 98.95	Dytek 783200.....
LDT 4000.....	0 128.95	Dytek 2000.....
		King AP-2000.....
		Robertson.....

PRICES VALID FOR MAIL ORDER ONLY. Federal excise tax of 3% on Flashes, not included.

Please call for price quote on items not listed.

**CHOCOMARIA'S**  
 3075 Emmons Avenue, Brooklyn, New York 11235  
 Store hours 10:00 A.M. - 6:00 P.M. Tuesday through Saturday  
 Closed Sunday and Monday. Sorry, No Credit Cards Accepted. C.O.D. or Prepaid Only. Prices Do Not Include Shipping and Handling.  
 For Information or Technical Advice: 718-934-6384  
 Prices subject to change prior to publication.

Water in your gas tank can cause serious problems.....  
 Noise aboard your boat.....  
 Alaska Diesel Electric offers 400-h.p. Lugger.....  
 BMW retreats from U.S. marine market.....  
 Rudders and shafts need regular maintenance.....

**FINFISH (East Coast)**

Butterfish venture killed in Long Island.....  
 NFI gives butterfish joint venture the ax.....  
 Florida longliner Lucky Lady combines business, pleasure.....  
 New England's groundfish stocks are in big trouble.....  
 Great white shark sets record for Carolinas.....  
 Sting operation hits illegal bass sales.....  
 N.E. fishermen lambaste proposed groundfish plan.....  
 Decline and debate pervade New England groundfishery.....  
 Health of groundfish stocks: opinions by Jake Dykstra,  
 Allen Peterson, Richard McLellan.....  
 Menhaden: soybean of the sea.....  
 Bluefin fishery made its mark on 1984.....  
 N.Y. striped bass ban: more politics than PCBs.....  
 Lou Puskas still makes money longlining tilefish.....  
 East Coast awaits factory trawlers.....  
 N.E. fishermen hurt by Georges Bank decision.....  
 Squabbling over closures threatens swordfish plan.....  
 Three Gloucester boats hunt dogfish.....  
 High-stakes fishing on the Grand Banks.....  
 Weir fishing in Maine.....  
 Herring JV provides U.S. seiners with ready market.....  
 Chesapeake striped bass stocks remain in critical condition.....  
 Commission boosts minimum bass size 9"

April 56  
 May 62  
 July 48  
 July 51  
 Oct. 44

Jan. 23  
 Feb. 12  
 Feb. 16  
 Feb. 24  
 March 28  
 April 10  
 April 12  
 YB 27

Jan. 14  
 March 34  
 YB 38  
 Sept. 39  
 Nov. 27

**FINFISH (Gulf Coast)**

Fla. halts harvest of kingfish in state waters.....  
 Grouper fishing with Laurilee Thompson.....  
 Menhaden: soybean of the sea.....  
 Florida tightens rules on mackerel, redfish, sea trout.....  
 Gulf king mackerel stocks plummet.....

Jan. 14  
 March 34  
 YB 38  
 Sept. 39  
 Nov. 27

**FINFISH (West Coast)**

Great white sharks mean extra dough.....  
 California's netters lose more ground to otters.....  
 Halibut fishing looks tamer in 1985.....  
 Billion-dollar bottomfish dream.....  
 Blackcod industry weighs successes against problems.....  
 Strength of rockfish stocks worries some Alaskans.....  
 Cod season shows little promise for Puget set-netter.....  
 1985 herring season seems stable.....  
 Blackcod and Fish and Chips scrutinized by council.....  
 Sitka's wild and woolly herring harvest.....  
 Blackcod pot phase-out requested.....  
 Healthy season in store for albacore fleet.....  
 Interest in sharks spawns conference on West Coast.....  
 Megamouth.....  
 Hake: the hope persists.....  
 Excalibur, Linda Jeanne prove their worth in JVs.....  
 Pollock shortage off Alaska.....

Jan. 4†  
 April 8  
 April 4†  
 YB 22  
 YB 48  
 May 2  
 May 31  
 May 4†  
 June 39  
 Aug. 2  
 Aug. 1†  
 Sept. 1†  
 Sept. 41  
 Sept. 35  
 Nov. 10†  
 Nov. 16†  
 Dec. 1†

**FOREIGN**

Georges Bank decision upsets Canadian fishermen.....  
 U.S. and Japan reach uneasy whaling agreement.....  
 Japanese allocation slashed 75% for enforcement evasion.....  
 ITC study may lead to trade action against Canada.....  
 Negotiators agree on draft of U.S./Canada salmon treaty.....  
 British Columbians can hardly believe a treaty is near.....  
 Lolojo JV needs big U.S. boats.....  
 North Pacific council proposes zero TALFF in Gulf of Alaska.....  
 Joint ventures continue to grow off Alaska.....  
 Japan's high-seas gillnet fleet clobbers U.S. salmon.....  
 Northeast fishing industry advised to seek duties.....  
 United States puts big squeeze on whaling.....  
 The phase-out fracas is heating up.....  
 U.S. fishermen feel effects of Canadian industry.....  
 Fishery management deal a blow in P.E.I. snow crab case.....  
 Trawler charged with catch and crew violations.....  
 ITC vote favors continuation of subsidy probe.....  
 Spain to harden EEC line on fisheries.....  
 John Fraser 'canned' in tainted tuna scandal.....

Jan. 2  
 Jan. 14  
 Jan. 22  
 Feb. 2  
 Feb. 5  
 Feb. 5  
 Feb. 13  
 Feb. 19  
 Feb. 5†  
 March 5  
 April 13  
 June 16  
 Sept. 10  
 Sept. 20  
 Sept. 22  
 Sept. 41  
 Nov. 10  
 Nov. 18  
 Dec. 5

**National Fisherman**

**The best catch of all.**

**Subscribe today!**

**TO ORDER BY PHONE, CALL TOLL-FREE**

**1-800-341-1522**

In Maine, Alaska and Hawaii, call collect (207) 236-2896

**OR MAIL TO: NATIONAL FISHERMAN**  
 Subscription Service Department  
 P.O. Box 929, Farmingdale, NY 11737

**YES!** I would like to subscribe to NATIONAL FISHERMAN for:

- One year (13 issues) at \$19.95
- Two years (26 issues) at \$38.00
- Three years (39 issues) at \$54.00

Please allow up to eight weeks for delivery of your first copy.  
 Outside U.S., add \$8.00 postage per year. Payment for non-U.S. subscriptions  
 must be by International Money Order or check drawn on U.S. bank.  
 Airmail rates available upon request.

My payment is enclosed.  Bill me.

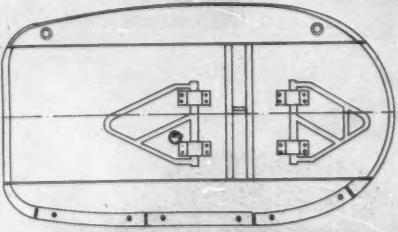
**Please indicate your interest in marine activity. Check only one box.**

- Boat owner  Boat operator  Fisherman
- Fishing company  Processor  Packer
- Fish buyer  Broker  Distributor
- Marine dealer  Boatbuilder  Naval architect  Marine surveyor  
 Marine broker
- Fisheries supply manufacturer  Equipment manufacturer
- Government agency or personnel
- Research organization  Association  School  Library

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City, State \_\_\_\_\_ Zip \_\_\_\_\_

**EURO** FISHING GEAR (U.S.A.) LTD.

2 MIDDLE STREET • P.O. Box 124 • FAIRHAVEN, MASSACHUSETTS 02719  
 (617) 994-3020 (617) 999-3540

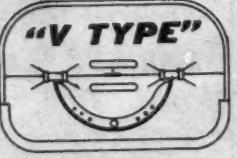


**ALL STEEL**

**TRAWL DOORS**

BETTER OPENING OF THE NET  
 LESS FUEL FOR SAME SPEED  
 HARD WEARING MANGANESE SHOES  
 EASY REMOVABLE SHOES  
 LONGER LIFE

**"V TYPE"**



96 NATIONAL FISHERMAN YEARBOOK 1986  
GEAR AND METHODS (Duncan Amos)

Echo sounders are up against a formidable task.....	41
Efficient new trawl doors require careful rigging.....	58
Preserving the catch is key to profits.....	52
Advanced echo sounders call for sharp interpretation.....	40
Gillnetting's low cost enhances its popularity.....	58
Gillnetting grab bag offers pointers.....	46
Tips on gearing up for eeling.....	40
A rundown of trawl doors.....	24
The importance of targeted trawling.....	48
Propulsion train more important as towing speeds rise.....	40
Proper icing and freezing practices.....	72
Cod end twine shrinkage.....	38

GEAR AND METHODS (Other)

Survival suit features improved maneuverability.....	50
Stability alarm aids seamanship.....	51
MarcoMatic longline system.....	48
Purifiner filtration system.....	68

Virginia's pound nets are becoming history.....	March 24
Bridgemaster portable helm.....	March 62
Abrasion resistant marine bearings.....	March 63
Sea-Slide helps hulls through the water.....	April 73
Pot fishing fuels debate over gear conflicts, quality.....	YB 49
Scottish seining means success for the Lucky Penny.....	YB 52
Skipper of automated longliner mothballs his Mustad.....	YB 56
Johnstone Strait salmon seiners do things differently.....	May 2
Jigging 50 miles off the Cape.....	May 33
Original patent tongs discovered.....	May 54
Fishing with Seabank autolineer Jessica B.....	June 2
Monofilament gear catches on with European longliners.....	June 30
Tubs simplify lives for Alaska longliners.....	June 32
Rappahannock makes copper paint for watermen.....	June 54
Haywire Klamper: a nice addition to your toolbox.....	June 55
Reefs and FADS: new tools for bigger catches.....	July 14
Maintenance of a clam dredge.....	Aug. 21
Triumphs of technology: tongue-in-cheek gear.....	Aug. 23
The new Supervee trawl doors.....	Aug. 27
Shrimp trawls studied in full-color movie.....	Aug. 29
Al Hawver provides tips on longline deck gear.....	Aug. 34
'Autotrawl' gear catches fancy of Northwest fleet.....	Aug. 40
Anti-icing formula Vellox 140.....	Aug. 71
Compound-X antifouling additive.....	Sept. 32
Lobster pot hauler has hydraulic boom.....	Sept. 33
Gillnetters may benefit from hydraulic propulsion.....	Oct. 34
Specially treated line holds up under saltwater use.....	Oct. 35
Carlson's Glofloat gets a patent.....	Oct. 36
Stronger outriggers make sense for shrimpers.....	Nov. 75
Improved marine steering system.....	Dec. 30
A simple, economical 'low-tech' steam box.....	Dec. 31

NEW!

Digital depth, speed and temperature indicator.



- Accurate, multifunction instrument
- Displays:  
DEPTH, feet, meters, fathoms  
SPEED, knots or miles per hour  
SURFACE WATER TEMP., °C or °F
- TRIP DISTANCE
- LOG DISTANCE
- ELAPSED TIME
- COUNT-DOWN TIME
- 4 preset alarms for shallow water depth, deep depth, speed variation, count-down time signals
- Extra large, back-lit, dual LCD
- Large keyboard gives quick access to all functions, even in rough waters
- Unmatched 2-year limited warranty
- Measures 7" (W) x 4.8" (H) x 1.8" (D)

For more information, contact:  
RAYTHEON MARINE COMPANY  
678 Island Pond Road  
Manchester, NH 03103 USA  
(603) 668-1600 Telex 943459

**Raytheon**

ROBERT L. KOCHER

Controlling heavy loads with counterbalance valve.....	Jan. 34
Don't choose the wrong propeller.....	Feb. 62
Calculating hydraulic-hose size can be tricky.....	April 61
A boat is a hostile environment for electrical wiring.....	June 48
Basic principles take the mystery out of electricity.....	June 48
Don't overlook proper electrical grounding.....	July 23
Stray current may cause many electrical woes.....	Aug. 66
Circuit breakers protect people and equipment.....	Sept. 56



COMPLETE SERVICE  
FOR MARINE  
TRANSMISSIONS

Distributors for:

Warner Gear

DIVISION OF BORG-WARNER CORPORATION

**BORG X WARNER**

Velvet Drive



PARAGON POWER

"The APITOL"

GEARS • SERVICE PARTS • ACCESSORIES

**MARINE TRANSMISSION SERVICE**

DIVISION OF LESSER INDUSTRIES

2780 Hamilton Blvd.

(201) 668-0300

South Plainfield, N.J. 07080



**Radon**  
radon boat building Inc.  
At D.R. Radon Boat Building  
practical experience is our best teacher

The Radon family, seasoned by years of experience in the commercial fishing and diving industries, have tested and proven the modern concepts which make the Radon boat what it is today; a commercial work boat built for success. Donald R. Radon, president and founder of D.R. Radon Boat Building, is one of the original family builders and designers.

D.R. Radon Boat Building builds custom boats in the following sizes: 21', 23', 26', 27', 32' and 34'. A larger one-off design is available only through custom order.

Radons are built with as many deck and cabin layouts as there are fishermen to use them; however, the proven hull design is never altered. We build a limited number of custom boats each year in order to insure our high quality workmanship.

COME TO THE EXPERTS AT RADON

(805) 683-2888

**radon boat building**  
67 Depot Rd. Goleta, CA 93117

## LEGISLATION

CCF could bite the dust.....	April	21
Limited entry: a door that often closes too late.....	April	28
Shares system of limited entry gives more options.....	April	30
Court action gives all Alaskans subsistence rights.....	June	1†
Limited entry: friend or foe?.....	Aug.	12
The phase-out fracas is heating up.....	Sept.	10
Limited entry has found few friends in Congress.....	Sept.	16
The industry speaks out on limited entry.....	Oct.	19
Limited entry: the debate continues.....	Nov.	32

## LOBSTERS

New England seeks to improve lobster management.....	Jan.	9
Florida's spiny lobster fishery still thrives.....	March	18
Trapping crawfish.....	March	20
New Englanders debate lobster-gauge hike.....	May	5
Meet Nova Scotia lobsterman Emmy Doiron.....	Sept.	25
Lobster pot hauler has hydraulic boom.....	Sept.	33
Military testing could spoil '85 Calif. lobster season.....	Nov.	1†

## MISCELLANEOUS

Taking on the marine insurance monster.....	Jan.	12
Saga of the Amaretto (continues for six issues).....	Jan.	18
North Carolina fishermen demonstrate their clout.....	Jan.	23
Bait-snatching porpoises plague Hawaiians.....	Jan.	6†
SBA disaster loans finally granted.....	Jan.	8†
Brisk sales at '84 Fish Expo.....	Jan.	52
Navy's test projects worry watermen.....	Feb.	21
Fulton art gallery does double duty.....	Feb.	22
Submerged Alaska crabber raised from depths.....	Feb.	4†
Gloucester co-op aims to ease insurance burden.....	March	4
In California, Vietnamese fishermen persevere.....	March	9
Fisheries patrol on the cutter Higgin.....	April	2
Going astray in a Grand Banks fog.....	YB	70
1984 East Coast landings down, competition up.....	YB	4
Chesapeake Bay: croaker was a bright spot.....	YB	6
Alaska and West Coast landings ran the gamut in '84.....	YB	8
The South may rise again, but fish prices didn't.....	YB	14
Luie Fass reflects on ill-fated Holland enterprise.....	YB	69
The fisheries of Puget Sound.....	May	29
New England gillnetters confront anglers.....	May	37
Prosecution faces tough case in Investor murders.....	June	20
Insurance crunch hits Texas shrimpers.....	July	16
Pushing quality in Portland, Maine.....	Aug.	8
Life as a foreign fisheries observer.....	Aug.	11
Gulf-based sport coalition expands.....	Sept.	8
Fishermen, developers battle for the waterfront.....	Oct.	2
Bypassing the middleman boosts fishermen's profits.....	Oct.	22
The New Bedford fishermen's union.....	Nov.	8
Tending buoys with the Coast Guard.....	Nov.	30
Death of the Isadore.....	Nov.	37
Rimmon Fay: chasing fish for science.....	Nov.	14†
Scuttled trawler's owner to sue the Canadian navy.....	Dec.	5
West Coast lawmakers join in alliance.....	Dec.	15
New Bedford: the struggle to stay No. 1.....	Dec.	20

## PEOPLE

Chris Howard, the Gulf Coast's fastest filletter.....	March	22
Sara Hammond, a world-class oyster shucker.....	March	23
NMFS honors Heber Bell.....	March	27
John Linehan and Warren Rathjen retire from NMFS.....	July	51
Noted fisherman Sig Jaeger dies.....	Aug.	49
URI net expert Hillier to leave teaching.....	Aug.	72
NF Highliners: Rudy Petersen, Mike McCorkle, Oscar Dyson.....	Nov.	98
Special award goes to Kodiak weather lady Peggy Dyson.....	Nov.	100

## POLLUTION/ENVIRONMENT

Oil spill, test drilling worry Calif. fishermen.....	Feb.	4†
Door remains open for ocean dumping of radioactive subs.....	Feb.	5†
Molybdenum mine threat looms over salmon fishermen.....	Feb.	8†
Constant destruction of wetlands threatens fisheries.....	April	14
'Dead water' menaces Chesapeake Bay.....	April	17
Toxic runoff threatens the San Joaquin.....	April	18
Watermen brace themselves to fight the good fight.....	May	21
Will acid rain take the rap for Chesapeake's decline?.....	May	21
Epidemic of fish ulcers worries biologists.....	July	11
Are seismic oil searches hurting fishermen?.....	Aug.	18
Oil companies couldn't cope with San Francisco spill.....	Oct.	12

## Hansen Marine Engineering, Inc.

The New England  
Master Distributor for:



617-631-3282  
Outside Mass.  
1-800-343-0480

HANSEN MARINE ENGINEERING, INC.  
Marblehead Business Park, Tuga Way  
Marblehead, Mass 01945



## COMPLETE ELECTRICAL STORES FOR:

- Merchant Fleet
- Towboat Industry
- Commercial Fish Fleet
- Government Vessels
- Shipyards

## IMPORTANT NOTICE TO SUBSCRIBERS

## MOVING?

MAIL TO: National Fisherman, Subscription Service Department, P.O. Box 929, Farmingdale, New York 11737

Let us know your new address by filling out the form below.

### WE NEED 8 WEEKS ADVANCE NOTICE!

Canadian Subscribers — Please include Zip Code

YOUR OLD ADDRESS  
Attach label from recent issue here

NAME \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

YOUR NEW ADDRESS  
Please print or type

NAME \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

YB/86

## Ranger CLIPPER

A NEW GENERATION of fishermen's foul weather gear



**RANPRO** Inc.

Box 430, Simcoe, Ontario N3Y 4L6  
Phone (519) 426-1094 Telex 061-61155

Distributorships available in selected areas.

Showdown over water in Texas.  
Delaware River and Bay: from cesspool to spawning ground.  
Algal invasion wallop L.I. scallopers.

**PROCESSING**

AFDF surimi project selects new processor.  
Surimi development jogs ahead.  
Raffish Fisheries to rebuild after fire.  
Surimi made in U.S.A. could be fishing's next boom.  
Getting U.S. surimi plants off the ground.  
U.S. catching/processing puts foreigners on shaky ground.  
New wave of domestic factory ships wants to play ball.  
Gloucester's gurry crisis.  
Mechanical sorters ease grading fish at sea.

Nov. 44  
Nov. 46  
Dec. 2  
  
Jan. 7†  
Feb. 1†  
April 74  
May 8  
June 10  
July 4  
July 5  
July 8  
Oct. 25

**� SALMON**

Initiative 456 drags out Boldt decision.  
Negotiators agree on draft of U.S./Canada salmon treaty.  
Japan's high-seas gillnetting fleet clobbers U.S. salmon.  
Indian lawsuit worries Alaska, jeopardizes salmon treaty.  
Teaching salmon survival ABCs could boost returns.  
Indian/Alaska pact paves way for treaty approval.

Working Bristol Bay.  
NW fishermen feel skittish as salmon farming grows.  
Set-netting for salmon on the muddy flats of Sustina.  
Puget Sound fishermen hang on to a once-thriving fishery.  
Johnstone Strait salmon seiners do things differently.  
Salmon treaty heads for implementation.  
State prison goes for 'pen'-raised salmon.  
Court decision gives all Alaskans subsistence rights.  
Treaty sets tone for trollers.  
Columbia River gillnetter rides the surf for salmon.  
Burden of protecting Klamath stock falls to trollers.  
Indian fishing sparks ruckus over salmon allocations.  
Flying fish in Bristol Bay.  
Future looks brighter for Columbia River salmon.  
Of barbecued salmon and ice-cold politics.  
Netters battle the Navy in Hood Canal.

Jan. 1†  
Feb. 5  
March 5  
March 13  
March 7†  
April 9  
YB 42  
YB 45  
YB 58  
YB 64  
May 2  
May 16  
May 1†  
June 1†  
June 4†  
July 12  
July 1†  
Oct. 1†  
Nov. 12  
Nov. 39  
Nov. 6†  
Nov. 13†

**SAFETY/SURVIVAL**

Prevention is the best weapon against shipboard fire.  
Stability alarm aids seamanship.  
Seattle conference addresses fishing industry safety.  
MAREP needs greater public support.  
Mandatory EPIRBs and licensing creep closer.

Jan. 24  
Jan. 51  
Feb. 19  
March 3  
Oct. 11

**� SHELLFISH (General)**

Horseshoe crab soars from pest to resource.  
Diving for dollars in Maine's ice-cold waters.  
Mussel dragging in Maine.  
Shell dredging stirs up silt and controversy.  
Algal invasion wallop L.I. scallopers.  
Scallop restoration plan is already underway.

Feb. 26  
April 24  
YB 34  
Nov. 54  
Dec. 2  
Dec. 3

**SHRIMP**

FDA looks at shrimp treatment.  
Plight of Southern shrimpers draws ITC's attention.  
Foreign mariculture is a dark cloud for U.S. shrimpers.  
Lone Star State passes shrimp over to Texas P&W.  
U.S. shrimpers bail out of shaky deal with Colombian firm.  
Stronger outriggers make sense for shrimpers.

March 26  
April 22  
YB 30  
Oct. 10  
Nov. 21  
Nov. 75

**A POWERFUL DIFFERENCE.**

Your electronics are only as good as your power source. That's why you need reliable power supplies and converters, dependable battery chargers, and proven power inverters. That's why you need NEWMAR. NEWMAR's power products are built to withstand the hostile marine environment...to defy moisture and corrosion for years of trouble-free service. You depend on your electronics for so much. Depend on NEWMAR for a reliable power source. NEWMAR makes a powerful difference.

**NEWMAR®**

For more information, contact your marine electronics dealer.

NEWMAR, P.O. Box 1306      Newport Beach, CA 92663 (714) 751-0488

**PROBLEMS?  
COMPLAINTS?  
ADDRESS CHANGES?**

If you're having problems receiving your copies of **NATIONAL FISHERMAN** — or if you have an address change . . . we want to know about it. Talk with one of our customer service representatives at our new toll-free number.

**1-800-227-5782 U.S. & Canada**

(W.Y. residents call: 1-800-752-9119)

We can serve you best if the mailing label from your latest copy of **NATIONAL FISHERMAN** is in front of you when you call. If the problem concerns your payment, a cancelled check on hand will let us solve the problem by phone.

CALL BETWEEN 8:45 A.M. and 4:45 P.M.  
Eastern time, Monday through Friday in the Continental U.S.

**FOR NEW SUBSCRIPTIONS  
CALL: 1-800-341-1528.**

In Maine, Alaska and Hawaii, call collect (207) 256-2896.

## Shipmate. Navigation Made Easy.

The full line of Shipmate electronics is what really makes life easy at sea. Whether you fish commercially or for sport, or simply need to get from one place to another with as little hassle as possible, Shipmate products will make it safer, easier and more convenient.

For pure navigation, the RS-5100 sat nav receiver offers an exceptionally broad range of performance features, including direct interface with the RS-2000 video plotter. And the RS-2000 is a plotter with an extra — real electronic charting for many of the most popular fishing and coastal areas of the U.S.

And there's more with Shipmate. Our RS-8000 fully synthesized and super compact VHF radiotelephone comes complete with handset and extension speaker. Or, the RS-1000 series of sailing instruments provides both analog and digital readout of all the data you need or want to know.

Shipmate. Send for complete information on our complete line. It's free . . . and it's easy.



ROBERTSON-SHIPMATE INC.

400 Oser Avenue, Hauppauge, NY 11786  
Tel. 800-645-3738 or 516-273-3737/Telex RCA 221686



